

APPROVED: Meeting No. 23-95

ATTEST: *Paula S. Jewell*

MAYOR AND COUNCIL  
ROCKVILLE, MARYLAND  
Meeting No. 08-95

February 6, 1995

The Mayor and Council of Rockville, Maryland, convened in Worksession in the Council Chamber, Rockville City Hall, 111 Maryland Avenue, Rockville, Maryland, on February 6, 1995, at 7:35 p.m.

PRESENT

Mayor James F. Coyle

Councilmember Robert E. Dorsey

Councilmember James T. Marrinan

Councilmember Rose G. Krasnow

Councilmember Nina A. Weisbroth

In attendance: Acting City Manager Rick Kuckkahn, City Clerk Paula Jewell, and Chief of Planning Lisa Rother. Also in attendance were Director of Public Works Robert Goodin, Senior Civil Engineer Susan Straus, Civil Engineer Janette Fearon, and Engineer Technician IV Tim Hall.

Mr. Kuckkahn pointed out that since 1978, the City's practice and policy has been to endorse the concept of storm water management in an effort to improve our water resources, and the City has made efforts to address the stormwater related problems within the Cabin John Creek watershed. In 1992, a Storm Water Management Task Force was appointed to assist the Mayor and Council in assessing the City's storm water management policies and to offer available options for storm water management in Rockville within federal and state regulations and policies. In the Spring of 1993, the City contracted with the

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Metropolitan Washington Council of Governments (COG) to undertake a study to evaluate the situation and develop a technical watershed management plan. The final report of COG's Study is the focus of this Worksession.

Ms. Straus presented in detail, an outline of the concept of stormwater management and its impact. Ms. Straus explained water quality and quantity control and gave a comparison of the City's laws in conjunction with the laws of Montgomery County and the State of Maryland. Ms. Straus also gave an overview of the three watersheds in Rockville: (a) Cabin John Watershed, (b) Rock Creek Watershed, and (c) Watts Branch Watershed and she spoke about the implementation of SWM procedures and staff's plans in the future to seek Mayor and Council approval of such procedures.

Civil Engineer Janette Fearon gave an overview of the Cabin John Watershed Study and explained the Council of Governments and the City's recommendations for stormwater management facilities. Ms. Fearon noted the following schedule for approval and implementation of the Watershed Study:

- ◆ February 1995 - Copies of Study to public agencies
- ◆ February 12, 1995 - Cabin John Stream walk
- ◆ March 9, 1995 - Public Information Meeting
- ◆ March 24, 1995- End of public comment period
- ◆ May 1995 - Final comprehensive Cabin John Watershed Master Plan

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The Mayor and Council then discussed the following recommendations:

1. Staff should provide a running total of regional participation
2. The City should adopt a 2/2 water quantity management approach instead of a 10/2.
3. Regarding at the Cabin John SWM project recommendations, provide a summary of costs versus benefits for each of the City's facilities. Also, put in priority order what benefits will be achieved.
4. Determine any effect that development of the Thomas and Irvington Farm properties would have on stormwater management.
5. How to determine what are specific quality and quantity benchmarks and how are these measured.
6. Some conclusion will have to be reached on the status of the Villages at Tower Oaks facility.
7. Staff was asked to publicize the following list of recommendations that citizens can do to help the City's water resources:
  - (a) Use natural alternatives to chemical fertilizers and pesticides. If using chemicals, follow package directions, use sparingly and never apply when rain is expected.
  - (b) Dispose of used oil, antifreeze, paints and other household chemicals properly; never pour them down storm drain inlets.

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- (c) Do not hose down driveways or sidewalks, dry sweep paved areas instead.
- (d) Wash cars on grass to prevent soapy water from reaching storm drains.
- (e) Keep litter, pet wastes, leaves and debris out of street gutters and storm drains.
- (f) Control soil erosion on your property by planting ground cover and stabilizing erosion-prone areas.

Ms. Straus' and Ms. Fearon's presentations are attached hereto in outline form and made a part of this official record.

Re: Adjournment

There being no further business to come before the Mayor and Council, the Worksession was adjourned at 9:43 p.m. to reconvene in Worksession on February 7, 1995.

Mayor and Council Worksession on  
Stormwater Management  
February 6, 1995

I. What is Stormwater management

- A. Runoff and its impacts
  - 1. All new development results in increased stormwater runoff
  - 2. Increased runoff causes stream degradation: erosion, wider streams with shallower flow, poor water quality.
- B. Water quality and quantity control
  - 1. Quality: Remove urban pollutants - Four basic methods
    - a. Infiltration
    - b. Filtering
    - c. Settling in a dry area
    - d. Settling in a wet area
  - 2. Quantity: regulates the RATE of flow by temporarily storing stormwater and releasing it at a controlled rate.
- C. Explanation of City laws and comparison with Montgomery County and the State

II. Explanation of the City and its tributaries - See maps

- A. Cabin John Watershed
- B. Rock Creek Watershed
- C. Watts Branch Watershed

III. SWM Procedures - implementing permanent procedures

- A. When and why the City allows participation in the regional program
  - 1. SWM vs economic concerns - how do we allow development and protect the environment?
  - 2. *New regional procedures*
    - a. *Concept SWM plan approval before final Planning approval*
    - b. *Public notification*
    - c. *In-fill single family house - participate in regional program*
    - d. *Two categories: large and small*
    - e. *Expand regional program (include stream restoration, wetland creation, stream buffers along with SWM facilities)*
    - f. *Summarize request using categories: type of development, type of watershed improvement project, watershed condition*

B. Watershed approach vs individual facilities

C. Categories of development

#### IV. Status of Cabin John Watershed Study

A. Purpose of Watershed study

1. State goals of the study
2. Change in direction of the program from water quantity to quality
  - a. MDE Committee on changing State regulations

B. COG and City Recommendations

1. SWM facilities

a. Provide brief explanation of types of proposed stormwater management facilities:

- 1) Extended Detention Marsh
- 2) Extended Detention Dry Pond
- 3) Off-line Extended Detention Marsh
- 4) Extended Detention Wet Pond

b. Present 16 sites and alternative Villages at Tower Oaks site

- 1) type of facility - what it provides for
- 2) ranking
- 3) which facilities citizens are concerned about
- 4) cost and projected year it will be designed and built

2. Stream restoration

3. Non-SWM Wetland Creation Sites

4. Removal of Fish Barriers

5. Reforestation Sites

C. Schedule for approval and implementation of Watershed Study

1. March 9, 1995 - Public hearing
2. February 1995- Send to public agencies
3. March 24, 1995 - End of comment period
4. May - Final comprehensive Cabin John Watershed Master Plan to include
  - a. history of the watershed
  - b. existing stream conditions
  - c. watershed goals
  - d. technical recommendations to attain the goals
  - e. affect on City law

## V. Where do we go from here?

A. Watts Branch Watershed Study

B. Rock Creek Watershed Study

C. What citizens can do to help our water resources

1. Use natural alternatives to chemical fertilizers and pesticides. If use chemicals, follow package directions, use sparingly and never apply when rain is expected.
2. Dispose of used oil, antifreeze, paints and other household chemicals properly; never pour them down storm drain inlets.
3. Do not hose down driveways or sidewalks, dry sweep paved areas instead.
4. Wash cars on grass to prevent soapy water from reaching storm drains.
5. Keep litter, pet wastes, leaves and debris out of street gutters and storm drains.
6. Control soil erosion on your property by planting ground cover and stabilizing erosion-prone areas.

## VI. Questions & Answers

## EFFECTIVENESS OF URBAN SWM FACILITIES

Urban SWM Facility	Reliability for Pollutant Removal	Longevity	Streambank Erosion Control	Comparative Cost
STORMWATER WETLANDS	Moderate to High	20+ years expected.	Usually provided.	Marginally higher than wet ponds.
EXTENDED DETENTION PONDS	Moderate, but not always reliable.	20+ years, but problems with clogging and short detention.	Usually provided.	Lowest cost alternative in size range.
WET PONDS	Moderate to High	20+ years.	Seldom provided.	Moderate to high compared to conventional.
INFILTRATION TRENCHES	Moderate	50% failure rate within five years.	Sometimes provided.	Cost-effective on smaller sites. Rehab costs can be considerable.
SAND FILTERS	Moderate to High	20+ years.	Seldom provided.	Comparatively high construction costs and frequent maintenance.
GRASSED SWALES	Low to Moderate	20+ years.	Seldom provided.	Low compared to curb and gutter.
WATER QUALITY INLETS	Low	20+ years.	Seldom provided.	High, compared to trenches and sand filters.

Source: Department of Environmental Programs, Washington Metropolitan Council of Governments

## Laws

City	County	State
When SWM required: Create 2,500 sf of impervious area (50' x 50')	< 1000 sf imp area - exempt 1000 - 5000 sf - pay regional fee > 5000 sf - reg. fee or on-site	Land development disturbing > 5000 sf
How much SWM Required: To <b>pre-development</b> conditions	To <b>pre-development</b> conditions	To <b>existing</b> conditions
Retrofitting: Dist > 50% site or double ex. imp. area, provide for entire site.	case by case	Not-req'd
"Waiver" Participate in City Regional program (not an exemption)	Participate in County Regional program (not an exemption)	Nothing required (exempted from state law)
Fees \$46,000/imp ac	\$55,000/imp acre	No regional program (no fees)

Cabin John SWM Project Recommendations  
January 17, 1995

Facility Number	Name of Facility	Cost to City per Ac-Ft of Storage	COG Priority Ranking	Rockville Priority Ranking	FY to be designed
1-A	Fleet Street	\$172,300	Low	Low	FY 2003
1-B	Mount Vernon Place	\$23,300	High	High	FY 1996
2	Elwood Smith *	\$96,800	Low	Moderate*	FY 1998
3	Rockville Heights	\$8,100	Moderate	Not Recommended	----
4	Hungerford Swim Center	\$37,800	High	High	FY 1996
5	New Mark Commons *	\$14,000	Moderate	Moderate*	FY 1998
6	Dogwood Park	\$108,000	Low	Not Recommended	----
7	Seven Locks/Detention Center	\$128,000	Moderate	Alternative Recommended	----
7A	Villages at Tower Oaks	N/A	Alternate Recomm.	High	By devel. (1995)
8	Dawson Farm	\$26,700	High	Low	FY 2000
9	Wootton Parkway	\$108,800	Moderate	Moderate	FY 1997
10	Potomac Woods #1	\$51,600	Low	High	FY 1996
11	Potomac Woods #2	\$145,100	High	Not Recommended	----
12	Potomac Woods #3	\$47,800	Moderate	Moderate	FY 1999
13	Locks Pond Court	\$31,000	High	High	FY 1995
14	North Farm	\$39,500	Moderate	Moderate	FY 1999
15	Woodmont Country Club	\$59,500	Low	Low	FY 2003
16	Montrose Park	\$9,200	High	High	FY 1997

\* Contingencies per City staff report

Cabin John Watershed Study Recommendations  
January 17, 1995

Stream Restoration Areas				
Facility Number	Name of Facility	Linear Feet of Channel	Construction Cost	FY to be designed
1	Upper/Middle Cabin John Creek Maintstem Leverton Rd to Wootton Parkway	1130	\$100,000	FY 1998
2	Elwood Smith Tributary E. Lynfield Dr. & Elwood Smith Branch	250	\$40,000	FY 1995
3	Bogley Branch Baseball field to Seven Locks Road	1030	\$90,000	FY 1996
4	Dogwood Park Tributary	400	\$120,000	FY 1998

Removal of Fish Barriers				
Location Number	Location	Upstream Length for Fish Habitat	Construction Cost	FY to be designed
1	Upper/Middle Cabin John Creek - Wootton Parkway Culvert	> 2000'	\$7,500	FY 1999
2	Dawson Farm Creek - Wootton Parkway Culvert	1300'	\$7,500	FY 1999
3	Seven Locks Tributary - Tower Oaks Culvert	1000'	\$7,500	FY 1999
4	Seven Locks Tributary - Above Monroe Street Tower Oaks Development	300'	-	Stream Restoration Work Approved by MDE
5	Bogley Branch - Maintenance Road access via hiker/biker trail; below Potomac Woods Park baseball field	700'	-	FY 1995
6	Elwood Smith Tributary - Cabin John Parkway Culvert	>1800'	\$7,500	FY 1999

Creation of Non-SWM Wetland Sites				
Location Number	Location	Wet Pool Area (Acres)	Construction Cost	FY to be designed
1	Cabin John Creek - Dogwood Park #1	0.1	\$15,000	FY 2000
2	Cabin John Creek - Dogwood Park #2	0.05	\$ 4,500	FY 2000
3	Cabin John Creek - Dogwood Park #3	0.16	\$ 5,300	FY 2000
4	Seven Locks Tributary - Tower Oaks #1	0.82	-	Completed by developer
5	Seven Locks Tributary - Tower Oaks #2	0.12	\$3,900	Private Ownership

Riparian Reforestation Sites				
Location Number	Location	Reforestation Acreage	Stream Length (Ft)	Land Ownership
1	Upper/Middle Cabin John Creek Mainstem - Edmonston to Leverton	0.86	1,500	Public
2	Upper/Middle Cabin John Creek Mainstem - Dogwood Park	0.91	200	Public
3	Upper Cabin John Creek - Elwood Smith Park	0.29	500	Public
4	Elwood Park Tributary & Cabin John Creek - Confluence Area	0.17	200	Public
5	Upper Dawson Farm Creek - Jefferson St. Area	0.10	200	Public
6	Dawson Farm Creek - Wootton Parkway Area	0.36	800	Private
7	Middle Cabin John Creek - Wootton Parkway Area	0.50	200	Private
8	Seven Locks Tributary - Wootton Parkway Area	0.28	400	Private